

**LISTING OF CLAIMS**

1. (Cancelled).

2. (Currently Amended) ~~The system of claim 1~~ A system for evaluating engine cylinder contribution comprising:

a displacement measurement device configured to detect engine block movement relative to a stationary structure; and

a signal analyzer coupled to the displacement measurement device and configured to evaluate the engine block movement for determining engine cylinder contribution,

wherein the displacement measurement device comprises a potentiometer having a shaft with a first end and a second end, wherein the first end is attached to the engine block and the second end is attached to the stationary structure.

Claims 3 through 6 (Cancelled).

7. (Currently Amended) ~~The system of claim 1~~ A system for evaluating engine cylinder contribution comprising:

a displacement measurement device configured to detect engine block movement relative to a stationary structure; and

a signal analyzer coupled to the displacement measurement device and configured to evaluate the engine block movement for determining engine cylinder contribution, wherein the displacement measurement device comprises a machine vision device.

Claims 8 through 18 (Cancelled).

19. (Currently Amended) ~~The method of claim 18,~~ A method for measuring cylinder contribution for an engine having a firing order, the method comprising the steps of:

implementing a displacement measuring device for detecting engine block movement relative to a stationary structure;

correlating the engine block movement to the firing order; and

evaluating, for at least one engine cylinder, the engine block movement; and further comprising:

attaching a first end of the displacement measuring device to the engine block; and

attaching a second end of the displacement measuring device to the stationary structure.

Claims 20 through 25 (Cancelled).

26. (Currently Amended) ~~The method of claim 25,~~ A method for measuring cylinder contribution for an engine having a firing order, the method comprising the steps of:

implementing a displacement measuring device for detecting engine block movement relative to a stationary structure;

correlating the engine block movement to the firing order; and

evaluating, for at least one engine cylinder, the engine block movement; wherein the evaluating step further comprises:

determining a cylinder contribution from the engine block movement; and

wherein the determining step includes computing a derivative of the engine block movement.

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Claim 27 (Cancelled).

Claim 28 (Cancelled).